In the Claims:[1]

Please amend claims 1, 8, 12, 21, 25-27, 31, 71 and 74 as follows:

C1

1. (Amended) A fusion protein exhibiting a phase transition, the fusion protein comprising:

(a) one or more biological molecules selected from the group consisting of peptides and proteins;

(b) one or more phase transition proteins that exhibit an inverse phase transition, wherein the one or more phase transition proteins are joined to the biological molecule(s) of (a); and

(c) optionally, a spacer sequence separating any of the phase transition protein(s) of (b) from any of the biological molecule(s) of (a).

C2

8. (Amended) The fusion protein of claim 7 wherein the antibody or antibody fragment has affinity for a biological molecule of interest, and wherein upon binding to the biological molecule of interest, the fusion protein retains some or all of its phase transition character.

C3

12. The fusion protein of claim 1 wherein the one or more phase transition protein(s) of 1(b) comprises oligomeric repeats of the pentapeptide Val-Pro-Gly-X-Gly, wherein X is any natural or non-natural amino acid residue, and wherein X optionally varies among oligomeric repeats.

C4

21. (Amended) The fusion protein of claim 1 wherein the spacer sequence comprises a proteolytic cleavage site.

C5

25. (Amended) The fusion protein of claim 1 wherein the fusion protein is recombinantly produced.

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[1] Consistent with the requirements of 37 C.F.R. §1.121, a marked up version of the amended claims is contained in Appendix A hereof; a clean copy of all pending claims is contained in Appendix B hereof. Consistent with the holding of Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., et al., 535 U.S. ___ (2002), decided May 28, 2002, any amendments herein that hereafter are deemed to be narrowing amendments by a court of competent jurisdiction in a final unappealed or unappealable decision, are not intended to relinquish any scope of equivalents unforeseeable at the time of this amendment or that relate to aspects of the invention having only a peripheral relation to the basis for the amendment.

26. (Amended) The fusion protein of claim 1 wherein any of the biological molecule(s) of 1(a), phase transition protein(s) of 1(b), or spacer sequence of 1(c) (when present) is recombinantly produced.

27. (Amended) A fusion protein exhibiting a phase transition, the fusion protein comprising:

C5

(a) one or more protein(s) of interest;

(b) one or more phase transition protein(s) joined at a C- and/or N-terminus of a protein of (a); and

(c) optionally, a spacer sequence separating any of the protein(s) of (a) and the phase transition protein(s) of (b).

31. (Amended) A fusion protein exhibiting a phase transition, the fusion protein comprising:

C6

(a) a protein of interest;

(b) a phase transition protein joined at a C- and/or N-terminus of the protein of interest; and

(c) optionally, a spacer sequence separating the protein of (a) from the phase transition protein of (b).

C7

71. (Amended) An elastin-like peptide fusion protein in a composition comprising a solvent medium in which the ELP fusion protein exhibits an inverse phase transition upon a predetermined change of composition condition.

C8

74. (Amended) The ELP fusion protein of claim 71, wherein said composition further comprises a cleavage agent effective to cleave the cleavage site of the ELP fusion protein to yield the protein of interest and the ELP as cleavage products.

Please add claim 76 as follows:

C9

76. (Added) The fusion protein of claim 12 wherein the phase transition protein(s) comprise a β-turn structure.